wherein said plasma torch includes means for injecting a gas between the plasma torch and said target in the area of said target to be heated so as to reduce the power of said plasma in said area, said method including the step of injecting said gas between the plasma torch and said preform in the area of an outside surface of said preform on which said plasma impinges, to thereby reduce the power of said plasma in said area.

10. The method claimed in claim 9 wherein the flowrate of said gas is from 3 l/min to 6 l/min.

11. The method claimed in claim 9 wherein said gas is air.

12. The method claimed in claim 9 wherein said gas is a neutral gas.

13. A system for fabricating an optical fiber preform, said system including:

means for holding said preform at both ends,

a plasma torch for localized heating of said preform, wherein said preform is said target, said plasma torch including means for injecting a substantially particle-free gas between the plasma torch and said target in the area of said target to be heated so as to reduce the power of said plasma in said area,

means for rotating said preform about its longitudinal axis,

means for moving said preform relative to said plasma torch in the direction parallel to said axis, and

means for causing said plasma torch to inject said gas between said preform and the plasma torch in the area of the outside surface of said preform on which said plasma impinges.

14. The system claimed in claim 13 wherein said gas injector means include an injector nozzle fixed relative to said torch, in the vicinity of which it is positioned so as to form, conduct and orient a jet of gas at a particular flowrate onto the area of the outside surface of said preform on which said plasma impinges.

15. The method claimed in claim 9 wherein the flowrate of said gas is 4 l/min.

16. The method claimed in claim 9 wherein said gas substantially particle-free.